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Appl. No. : 09/601,665 Confirmation No.: 9528
Applicant : YVIN, Jean-Claude et al
Filed : December 28, 2000
TC/A.U. : 1614
Examiner: : Ray Henley

Docket No. : 16721-0023 (42528/213591)
Customer No. : 11-0855

For: MEDICINE FOR TREATING APOPTOSIS
DYSFUNCTIONS CONTAINING OLIGOSACCHARIDES

AMENDMENT AND RESPONSE TO FINAL OFFICE ACTION

Commissioner for Patents
P. O. Box 1450
Alexandria, Virginia 22313-1450

Sir:

In response to the Office Action of July 28, 2003, please amend the above-identified application as follows:

Amendments to the Claims are reflected in the listing of claims which begins on page 2 of this paper.

Remarks begin on page 6 of this paper.

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on October 28, 2003.


Sima Singadia Kulkarni - Reg. No. 43,732

also
A1
dysfunction which is capable of modifying apoptosis dysfunctions said substance being selected from the group consisting of oligosaccharides which are derived, by enzymatic or chemical process, from the polymers of the group comprising (1→3)-β-glucans which optionally comprise (1→6)-β- branching, and oligosaccharides which are derived, by enzymatic or chemical process, from sulfated galactans, it also concerns a method for treating apoptosis dysfunction.

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(filed 1/30/03)
→ A substitute specification including the claims as filed is herewith enclosed pursuant to 37 CFR 1.125(a).

In the specification, please add the following paragraph after line 17 of page 10, as follows:

Brief Description of the Drawings

A2
Fig. 1 shows a ¹³C-NMR spectrum of the product referred to as L₁₁.

Fig. 2 shows a histogram showing the results of the first test of example 1.

Fig. 3 shows a histogram showing the results of the second test of example 1.

Fig. 4 shows a histogram showing the results of the third test of example 1 with I₉ concentrations of 0 mg/ml, 0.005 mg/ml, 0.01 mg/ml and 0.05 mg/ml.

Fig. 5 shows a histogram showing the results of the third test of example 1 with I₉ concentrations of 0 mg/ml, 0.1 mg/ml, 0.25 mg/ml and 0.5 mg/ml.

Fig. 6 shows a histogram showing the results of the third test of example 1 with I₉ concentrations of 0 mg/ml, 0.25 mg/ml, 0.5 mg/ml and 1 mg/ml.

Fig. 7 shows a histogram showing the results of the test of example 1 in which the active principle is added 3 hours after FasAb addition.

Fig. 8 shows a histogram showing the results of the test of example 1 in which the active principle is added 6 hours after FasAb addition.

MEDICINE FOR TREATING APOPTOSIS DYSFUNCTIONS CONTAINING
OLIGOSACCHARIDES

5 The subject of the invention is a medicine for
treating apoptosis dysfunctions.

The term «apoptosis» is intended to refer to
programmed cell death or cell suicide.

This death corresponds to a self-elimination of
cells according to a defined program.

10 It reveals itself, initially, through bulges in
the plasma membrane, these bulges being accompanied by a
structural change in the membrane, and then through a loss
of volume of the cell, which appears to contract and to
collapse in on itself.

15 The nucleus condenses and the DNA is cleaved into
small fragments (Raff, «Nature», 356, 397, 1992; Bortner
et al., «Trends in Coll. Biol.» 5, 21, 1995).

In vivo, the cell undergoing apoptosis is
recognized by macrophages which will phagocytose it and
20 eliminate it without any inflammatory process.

Still in vivo, apoptosis is widely used by living
organisms to control cell populations, in particular
lymphocytes subsequent to their activation.

Moreover, during the development of organisms,
25 apoptosis plays a fundamental role in the elimination of
unnecessary embryonic tissues (lizard tail, rudiment of
the genital organs of one sex or the other) and in the
pattern of the organism (elimination of the interdigital
webs between the future fingers etc.).

30 Some compounds which are present in living
organisms specifically induce an apoptotic phenomenon.
Thus, for example in mammals, the binding of the Fas
ligand to the Fas membrane-bound receptor, which is also
referred to as APO-1 or CD95, specifically induces an
35 apoptosis; this apoptosis is used by the living organism

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